

# UP SuperServer SYS-510T-M

**NEW**

## Key Applications

- Web/Hosting Application
- Email/Firewall/Print Server
- General Purpose

## Key Features

1. Single Socket H5 (LGA-1200) supports Intel® Xeon® E-2300 series, Intel® Pentium® processors
2. 4 DIMMs; Up to 128GB of DDR4 ECC UDIMM memory with speeds of up to 3200MHz
3. 1 PCI-E 4.0 x16 or 2 PCI-E 4.0 x8 (FHHL);  
1 Dedicated Internal HBA slot
4. Intel® Ethernet Controller i210 2x 1GbE RJ45
5. 4x Hot-swap 3.5" SATA3 drive bays, SAS3 w/ additional SAS controller card; Onboard 1x NVMe M.2
6. Single Platinum 350W Power Supply

# Specifications

## Product SKUs

- SYS-510T-M** ■ SuperServer SYS-510T-M (Black)

## Motherboard

### Super X12STH-SYS

## Processor

- CPU** ■ Single Socket H5 (LGA 1200)  
 ■ Support Intel® Xeon® E-2300 series Processors and 10th Gen. Pentium® Processors  
 ■ Support CPU TDP 95W

- Cores** ■ Up to 8C/16T; Up to 16MB Cache

## System Memory

- Memory** ■ Memory Capacity: 4 DIMM slots  
 ■ Up to 128GB: 4x 32 GB DRAM  
 ■ Memory Type: 3200/2933/2666MHz ECC DDR4 UDIMM

- Memory Voltage** ■ 1.2 V

- Error Detection** ■ Yes

## On-Board Devices

- SATA** ■ SATA3 (6Gbps); RAID 0/1/5/10 support (Port 0-5)

- Chipset** ■ Intel® C256

- Network Connectivity** ■ 2x 1GbE BaseT with Intel® i210

- IPMI** ■ Support for Intelligent Platform Management Interface v.2.0  
 ■ IPMI 2.0 with virtual media over LAN and KVM-over-LAN support

## Input / Output

- SATA** ■ 8 SATA (6Gbps) port(s)

- LAN** ■ 1 RJ45 Dedicated IPMI LAN port  
 ■ 2 RJ45 1GbE LAN ports

- USB** ■ 5 USB 3.2 Gen 1 port(s) (2 headers; 2 rear; 1 Type A)  
 ■ 6 USB 2.0 port(s) (4 headers; 2 rear)

- Video** ■ 1 VGA port(s)

- Serial Port** ■ 2 COM Port(s) (1 header; 1 rear)

- DOM** ■ 2 SuperDOM (Disk on Module) port with built-in power

## System BIOS

- BIOS Type** ■ AMI 32MB SPI Flash EEPROM

## Chassis

- Form Factor** ■ 1U Rackmount

- Model** ■ CSE-813MF2TS-350RCBP

## Dimensions and Weight

- Height** ■ 1.7" (43mm)

- Width** ■ 17.2" (437mm)

- Depth** ■ 19.98" (507mm)

- Package** ■ 8.5" (H) x 24" (W) x 29.5" (D)

- Weight** ■ Net Weight: 17.6 lbs (8 kg)  
 ■ Gross Weight: 30.4 lbs (13.8 kg)

- Available Color** ■ Black

## Front Panel

- Buttons** ■ Power On/Off  
 ■ System Reset

- LEDs** ■ Device Activity  
 ■ LAN 1 Activity  
 ■ LAN 2 Activity  
 ■ Power status  
 ■ System information

## Expansion Slots

- PCI-Express (PCI-E)** ■ Slot 1: PCIe 4.0 x16 or x8 (FHHL)  
 ■ Slot 2: PCIe 4.0 x0 or x8 (LP) [Auto Switch with Slot 1]  
 ■ Slot 3: Dedicated Internal HBA Slot  
 (Pentium CPUs provide PCI-e 3.0 only.)

## Drive Bays / Storage

- Drive Bays** ■ 4x 3.5" SATA drive bays

- M.2** ■ 1x PCI-E 3.0 x 4  
 ■ M-key, 2280, 22110

- Peripheral Bays** ■ 2x 2.5" drive bays

## System Cooling

- Fans** ■ 2 AOC cooling Fan(s) (optional)  
 ■ 4 middle cooling PWM 40x40x28mm Fan(s)

## Power Supply

1U 350W Multi-output, Platinum level, W100xL180xH40mm,RoHS/REACH

- Total Output Power** ■ 350W

- Dimension (W x H x L)** ■ 100 x 40 x 180 mm

**Management****Software**

- [IPMI2.0](#)
- [Redfish API](#)
- [SSM](#)
- [SPM](#)
- KVM with dedicated LAN
- [SUM](#)
- NMI

**Power Configurations**

- ACPI/APM Power Management

**PC Health Monitoring****CPU**

- 6 + 2 + 1 Phase-switching voltage regulator
- Monitors for CPU Cores, Chipset Voltages, Memory

**FAN**

- Fans with tachometer monitoring
- Pulse Width Modulated (PWM) fan connectors
- Status monitor for speed control

**Temperature**

- Monitoring for CPU and chassis environment
- Thermal Control for fan connectors

**AC Input**

- 350W: 100-240Vac / 2.5A-5A / 50-60Hz

**+12V**

- Max: 29A / Min: 0.5A

**5V SB**

- Max: 3A / Min: 0A

**Certification****Platinum Level****[ [Test Report](#) ]****Operating Environment****Environmental Spec.**

- Operating Temperature: 10°C ~ 35°C (50°F ~ 95°F)
- Non-operating Temperature: -40°C to 70°C (-40°F to 158°F)
- Operating Relative Humidity: 8% to 90% (non-condensing)
- Non-operating Relative Humidity: 5% to 95% (non-condensing)

## Parts List

### Parts List - (Items Included)

	Part Number	Qty	Description
<b>Motherboard / Chassis</b>	MBD-X12STH-SYS	1	Super X12STH-SYS Motherboard
	CSE-813MF2TS-350RCBP	1	1U Chassis
<b>Backplane</b>	BPN-SAS3-815TQ	1	1U 4-Port 12Gbps Backplane Support 4x3.5
<b>Cable 1</b>	CBL-0296L	1	9" 4 PIN FAN PWS EXTENSION CORD, PBF
<b>Cable 2</b>	CBL-SAST-0811	1	MINI SAS HD-4 SATA (RA),12G,INT,50/50/60/70,70CM SB,30AWG
<b>Air Shroud</b>	MCP-310-81307-0B	1	Mylar Air Shroud for SC813MF2/SC113MF_RCB with X12STH
<b>Manual</b>	MNL-2419-QRG	1	510T-M/MR Quick Reference Guide
<b>Riser Card</b>	Proprietary Riser Card	1	1U RHS Standard Riser card with one PCI-E 4.0 X16 and one PC
<b>Software</b>	SFT-OOB-LIC	1	License key for enabling OOB BIOS management
<b>Heatsink / Retention</b>	Proprietary Heatsink	1	Proprietary 1U Passive CPU HS, Rocket Lake (SKT-H5 LGA-1200)
<b>*Power Supply</b>	PWS-350-1H	1	1U Single AC-DC 350W Platinum Level, multiple output power supply (180mm)
<b>*Cable 3</b>	CBL-0071L	1	ROUND 16 TO 16 PIN RIBBON FP CABLE 30"L, LF
<b>*Cable 4</b>	CBL-PWCD-0160-IS	1	PWCD,US,NEMA5-15P TO IEC60320 C13,6FT,16AWG,RoHS/REACH
<b>*Peripheral Drive1</b>	CSE-PT93L-B	1	Black DVD dummy cover for SC813, 813M, 815, PBF-RoHS
<b>*FAN 1</b>	FAN-0154L4	4	40x40x28 mm, 22.5K RPM, SC813MF Middle Cooling Fan,RoHS/REACH
<b>*Front Panel</b>	FPB-FP813-D	1	Front control board dual color for SC815,SC813M (C)
<b>*Drive Tray(s)</b>	MCP-220-00075-0B	4	Black gen 5.5 hot-swap 3.5" HDD tray
<b>*Rear Window</b>	MCP-240-00196-0N	1	Non-C Rear window Assy for SC813MF2_RCB Single PWS
<b>*Rail Set</b>	MCP-290-00102-0N	1set	Outer rail, quick-release type, 25.6" to 33.05"
<b>*Rail Set</b>	MCP-290-00108-0N	1set	Inner rail, front, short, quick-release type
<b>*Rail Set</b>	MCP-290-00110-0N	1set	Inner rail, extension (quick) for 1U 17.2
<b>*Fan Holder</b>	MCP-320-00060-0N	1	Slim Fan tray for six 40x28 fans in SC813M (for X11DPL-i 12"x10.15")
<b>*Parts</b>	MCP-340-00001-01	2	Dummy fan 40x28mm

#### Notes:

1. Parts with \* are inside the chassis
2. Excessive parts might not be shipped, including but not limited to excessive drive trays, fans, riser brackets, air shrouds, IO shields, cables.....etc.

### Optional Parts List

	Part Number	Qty	Description
<b>3.5" to 2.5" Converter Tray(s)</b>	MCP-220-00043-0N • <a href="#">eStore</a>	-	Hot-swap Gen-4 3.5" to 2.5" HDD tray, Black
<b>Add-on Card for additional M.2</b>	<a href="#">AOC-SLG3-2H8M2</a>	-	Standard LP, PCI-E 3.0 x8, supports 2x NVMe/SATA M-Key M.2 Modules; RAID 0,1
<b>CacheVault</b>	BTR-CV3108-U1 + MCP-240-81305-0N (For S3108)	1	CacheVault for Broadcom 3108 with SuperCap mounting bracket for internal fixed location
	BTR-CVPM05 + BKT-BBU-BRACKET-05 (For S3908)	1	CacheVault for Broadcom 3908 with SuperCap mounting bracket for PCI-E location

<b>Cooling Fan(s)</b>	FAN-0154L4 • <a href="#">eStore</a>	-	40x40x28 mm, 22.5K RPM, Middle Cooling Fan
<b>DVD-ROM / DVD-RW</b>	DVM-PLDS-DVDRW-SBT5	1	PHILIPS slim DVD-RW SATA drive
	DVM-TEAC-DVD-SBT5	1	TEAC slim DVD-ROM SATA drive
<b>DVD-ROM Accessory</b>	MCP-220-81502-0N • <a href="#">eStore</a>	1	Slim SATA DVD mounting kit
<b>Front Bezel</b>	CSE-PTFB-813-02B	1	Black Front Bezel w/ Round Venting Holes
	CSE-PTFB-813LB	1	Black Front Bezel
<b>Hot-swap 2.5" kit (DVD slot)</b>	MCP-220-81506-0N • <a href="#">eStore</a>	1	Single 2.5" SAS3 (12Gb/s) hot swap in slim DVD form factor
<b>Hot-swap 2.5" kit (FDD slot)</b>	MCP-220-81504-0N • <a href="#">eStore</a>	1	Single 2.5" SAS3 (12Gb/s) hot swap in slim FDD form factor
<b>Inlet Thermal Sensor</b>	MCP-280-00034-0N	1	Universal Thermal sensor kit with 40cm I2C cable
<b>Software</b>	<a href="#">SFT-DCMS-Single</a>	1	DataCenter Management Package (per node license)
<b>Storage Control Card and Cable(s)</b>	AOC-S3908L-H8iR-16DD + 1x CBL-SAST-1275A-100	1	Standard LP, 8 internal ports (12Gb/s) PCI-E 4.0 x8, 16HDD; RAID 0, 1, 5, 6, 10, 50, 60
	<a href="#">AOC-S3108L-H8iR-16DD</a>	1	Standard LP, 8 Internal ports (12Gb/s) PCI-E 3.0 x8, 16HDD; RAID 0, 1, 5, 6, 10, 50, 60
	<a href="#">AOC-S3008L-L8I</a>	1	Standard LP, 8 internal ports (12Gb/s) PCI-E 3.0 x8, 63HDD; RAID 0, 1, 10
<b>Storage Control Card and Cable(s) (HBA)</b>	<a href="#">AOC-S3808L-L8IT</a> + 1x CBL-SAST-1275A-100	1	Standard LP, 8 internal ports (12Gb/s) PCI-E 4.0 x8, 122HDD; HBA
	<a href="#">AOC-S3008L-L8E</a>	1	Standard LP, 8 internal ports (12Gb/s) PCI-E 3.0 x8, 122HDD; HBA
<b>TPM</b>	AOM-TPM-9671H-O	1	TPM 1.2, horizontal form factor
	AOM-TPM-9670H-O	1	TPM 2.0, horizontal form factor